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g) an additional detector device for detecting fluorescence radiation generated due to excitation of one or more molecules, molecular complexes or molecular fragments, and

h) a correlator unit which is connected with the two detector devices.

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155. (Amended) The device according to claim <sup>21</sup>154, further comprising

i) a T-shaped support with a first supporting arm and a second supporting arm connected therewith and running perpendicular to the first supporting arm,

j) two holding devices arranged at the ends at the faces of the second supporting arm for axial guiding and holding of optical elements for the two laser beams and the two fluorescence radiations wherein the focused laser beams impinge on a glass slide bearing the measuring volume and being separably arranged between the two ends at the faces of the second supporting arm and held by them,

G<sub>2</sub>  
(cont.)

wherein the two holding devices can be moved synchronously relative to their respective ends at the faces of the second supporting arm in a direction of a longitudinal extension thereof, the two holding devices are extended in a direction of extension of the first supporting arm, and the two laser beams can be deflected by deflecting mirrors through optical openings out of an inside of the first supporting arm onto the optical elements for the laser beams held at the holding devices.

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156. (Amended) The device according to claim <sup>21</sup>154, further comprising

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- i) a T-shaped support with a first supporting arm and a second supporting arm connected therewith and running perpendicular to the first supporting arm,
- j) two holding devices arranged at the ends at the faces of the second supporting arm for axial guiding and holding of optical elements for the two laser beams and the two fluorescence radiations wherein the focused laser beams impinge on a glass slide bearing the measuring volume and being separably arranged between the two ends at the faces of the second supporting arm and held by them,

wherein the two holding devices can be moved synchronously relative to their respective ends at the faces of the second supporting arm in a direction of a longitudinal extension thereof, the two holding devices are extended in a direction of extension of the first supporting arm, and the two laser beams can be deflected by semitransparent mirrors through optical openings out of an inside of the first supporting arm onto the optical elements for the laser beams held at the holding devices.

6<sub>2</sub>  
(cont.)  
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157. (Amended) The device according to claim <sup>21</sup>154 wherein the focused laser beams are being separably arranged halfway between the two ends at the faces of the second supporting arm.

25  
158. (Amended) The device according to claim <sup>21</sup>154 wherein the optical elements for the laser beams are arranged at the inner sides, facing each other, of the two holding devices and the optical elements for the fluorescence radiation are arranged at the outer sides, facing away from each other, of the two holding devices.

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<sup>26</sup><sup>21</sup>

<sup>159</sup>. (Amended) The device according to claim <sup>154</sup> wherein one of the focusing objective lenses can be positioned by an adjusting element for compensation of an offset of the focuses of said focusing objective lenses.

G<sub>2</sub>  
(cond.)

<sup>28</sup>

<sup>162</sup>. (Amended) The device according to claim <sup>161</sup> comprising computer assisted means for processing or evaluating the measuring signal.

<sup>11</sup><sup>7</sup>

<sup>163</sup>. (Amended) The device according to claim <sup>126</sup> wherein the appliances for prefocusing are provided with a lens and an array corresponding to microscope optics wherein a collimated laser beam is focused on the image plane B<sub>1</sub> by a lens and on the image plane B<sub>2</sub> (first image) by said array.

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<sup>60</sup>

<sup>168</sup>. (Amended) The device according to claim <sup>120</sup> wherein one or more detector elements are placed in the image plane in the form of a detector array.

G<sub>4</sub>

<sup>34</sup>

<sup>170</sup>. (Amended) The device according to claim <sup>119</sup> wherein the laser beam generation device comprises a continuous laser emitting light of wavelengths > 200 nm.

<sup>35</sup><sup>34</sup>

<sup>171</sup>. (Amended) The device according to claim <sup>170</sup> wherein the laser is an argon, krypton, helium-neon, or helium-cadmium laser.

G<sub>5</sub>

<sup>36</sup>

<sup>172</sup>. (Amended) The device according to claim <sup>119</sup> wherein the laser beam generation device comprises a laser pulsed with high frequency of ≥ 20 MHz with a power of ≥ 0.5 mW.

G<sub>6</sub>

<sup>180</sup>. (Amended) The device according to claim <sup>119</sup>, further comprising an electrophoretic device with at least one electrophoresis cell having at least one opening for charging/discharging of

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G<sub>6</sub>  
(cont.)

a sample to be analyzed into the measuring volume or of a washing solution, a wall electrode, a ring electrode, a Neher capillary, an electrode at the tip of the capillary and a droplet outlet.

G<sub>7</sub>

<sup>49</sup>185. (Amended) The device according to claim <sup>44</sup>180 further comprising a sheet for receiving samples, said sheet having specific binding properties for molecules due to molecular derivatization.

<sup>52</sup>188. (Amended) The device according to claim <sup>49</sup>185, comprising sheets having different molecular structures of different binding specificity as ligands in specific positions.

G<sub>8</sub>

<sup>53</sup>189. (Amended) The device according to claim <sup>44</sup>180 wherein the sample comprising one or more molecules, molecular complexes or molecular fragments to be detected is fixed on a sample receiving device which is two-or three-dimensionally controllable.

<sup>54</sup>190. (Amended) The device according to claim <sup>53</sup>189 wherein the sample receiving device comprises two- or three-dimensional piezo drives to fix the sample in defined space coordinates.

<sup>57</sup>193. (Amended) The device according to claim <sup>1</sup>119 wherein the detector device comprises a multiarray detector.

G<sub>9</sub> <sup>58</sup>194. (Amended) The device according to claim <sup>1</sup>119 comprising an optical system for the parallel illumination of several measuring volumes.

<sup>112</sup>195. (Amended) The device according to claim <sup>111</sup>243 wherein the focused laser beams are being separably arranged halfway between the two ends at the faces of the second supporting arm.

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<sup>113</sup><sup>111</sup>

196. (Amended) The device according to claim <sup>111</sup>243 wherein the optical elements for the laser beams are arranged at the inner sides, facing each other, of the two holding devices and the optical elements for the fluorescence radiation are arranged at the outer sides, facing away from each other, of the two holding devices.

<sup>114</sup><sup>111</sup>

197. (Amended) The device according to claim <sup>111</sup>243 wherein one of the focusing objective lenses can be positioned by an adjusting element for compensation of an offset of the focuses of said focusing objective lenses.

<sup>80</sup><sup>79</sup>

200. (Amended) The device according to claim <sup>79</sup>199 comprising computer assisted means for processing or evaluating the measuring signal.

<sup>66</sup><sup>66</sup>

201. (Amended) The device according to claim <sup>66</sup>144 wherein the appliances for prefocusing are provided with a lens and an array corresponding to microscope optics wherein a collimated laser beam is focused on the image plane B<sub>1</sub> by a lens and on the image plane B<sub>2</sub> (first image) by said array.

<sup>85</sup><sup>60</sup>

208. (Amended) The device according to claim <sup>60</sup>120 wherein the laser beam generation device comprises a continuous laser emitting light of wavelengths > 200 nm.

<sup>86</sup><sup>85</sup>

209. (Amended) The device according to claim <sup>85</sup>208 wherein the laser is an argon, krypton, helium-neon, or helium-cadmium laser.

<sup>87</sup><sup>60</sup>

210. (Amended) The device according to claim <sup>60</sup>120 wherein the laser beam generation device comprises a laser pulsed with high frequency of ≥ 20 MHz with a power of ≥ 0.5 mW.

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<sup>95</sup> 218. (Amended) The device according to claim ~~120~~<sup>95</sup>, further comprising an electrophoretic device with at least one electrophoresis cell having at least one opening for charging/discharging of a sample to be analyzed into the measuring volume or of a washing solution, a wall electrode, a ring electrode, a Neher capillary, an electrode at the tip of the capillary and a droplet outlet.

G<sub>12</sub>

<sup>100</sup> 223. (Amended) The device according to claim ~~218~~<sup>95</sup> further comprising a sheet for receiving samples having specific binding properties for molecules due to molecular derivatization.

G<sub>13</sub>

<sup>103</sup> 226. (Amended) The device according to claim ~~223~~<sup>100</sup> comprising sheets having different molecular structures of different binding specificity as ligands in specific positions.

<sup>104</sup> 227. (Amended) The device according to claim ~~218~~<sup>95</sup> wherein the sample comprising one or more molecules, molecular complexes or molecular fragments to be detected is fixed on a sample receiving device which is two- or three-dimensionally controllable.

G<sub>14</sub>

<sup>105</sup> 228. (Amended) The device according to claim ~~227~~<sup>104</sup> wherein the sample comprises two- or three-dimensional piezo drives to fix the sample in defined space coordinates.

<sup>108</sup> 231. (Amended) The device according to claim ~~120~~<sup>60</sup> wherein the detector device comprises a multiarray detector.

G<sub>15</sub>

<sup>109</sup> 232. (Amended) The device according to claim ~~120~~<sup>60</sup> comprising an optical system for the parallel illumination of several measuring volumes.

Add the following claim: